

This listing of claims will replace all prior versions and listings of claims in the application:

1-20 (Canceled)

21. (Currently Amended) A cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer <a href="https://proceen.org/nature-

wherein  $F_{max}$ , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm<sup>2</sup> and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of  $53/c~\mu g/mm^2$  with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{max}$ .

- 22. (Previously Presented) The composition according to claim 21, wherein said supports (A) and (B) comprise at least one material chosen from of polyethylene, polypropylene, metal alloy and glass.
- 23. (Previously Presented) The composition according to claim 21, wherein said maximum detachment force  $F_{\text{max}}$  is greater than 2.5 N.
- 24. (Previously Presented) The composition according to claim 21, wherein said dried composition has a glass transition temperature (Tg) of less than +10°C, and has a detachment profile defined by at least:
  - (a) a maximum detachment force  $F_{max} > 1 N$ , and
- (b) when said temperature Tg is less than -15°C, a separation energy  $E_{(M/V)}$  of the material placed in contact with a glass surface of less than 300  $\mu J$ .
- 25. (Previously Presented) The composition according to claim 24, wherein the separation energy E<sub>(M/V)</sub> is the energy supplied by the extensometer to separate the surfaces of two respective rigid, inert, nonabsorbent supports (C) and (D), each of said surfaces having a surface area of 38 mm², wherein said supports are placed facing each other, and wherein one of said supports (C) and (D) comprises polished glass and the other of said supports (C) and (D) is coated at a rate of 53/c μg/mm² with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition, and wherein said coated surface is dried for 24 hours at 22°C, under a relative humidity of 50%, and wherein the surfaces of both (C) and (D) are then subjected for 20 seconds to a compression of 3 N, and then subjected to a tensile force of detachment at a speed of 20 mm/minute for 30 seconds.

26. (Previously Presented) The composition according to claim 25, wherein the energy supplied by the extensometer is the work calculated by means of the following formula:

in which

F(x) is the force required to produce a displacement (x);

 $X_{s1}$  is the displacement (expressed in millimeters) produced by the maximum tensile force;

 $X_{s2}$  is the displacement (expressed in millimeters) produced by the tensile force that allows the total separation of the two surfaces of the supports (C) and (D).

- 27. (Previously Presented) The composition according to claim 21, wherein said solid particles are chosen from flakes, platelets, leaflets, fibrils and powders.
- 28. (Previously Presented) The composition according to claim 21, wherein said solid particles have a size of less than 1 mm.
- 29. (Previously Presented) The composition according to claim 28, wherein said solid particles have a size of less than 100  $\mu m$ .
- 30. (Previously Presented) The composition according to claim 29, wherein said solid particles have a size of less than 30  $\mu$ m.
- 31. (Currently Amended) The composition according to claim 21, wherein the concentration of said at least one branched sulfonic adhesive polymer <a href="https://example.com/having-a-brookfield-thermosel-viscosity-at-177°C of about 35,000 cP (mPa·s)">having a</a>
  Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa·s), ranges from 0.05% to 30% by weight relative to the weight of the composition as a whole.

- 32. (Currently Amended) The composition according to claim 31, wherein the concentration of said at least one branched sulfonic adhesive polymer <a href="having a">having a</a>
  <a href="mailto:Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa's)">mailto:Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa's)</a>, ranges from 0.1% to 20% by weight, relative to the weight of the composition as a whole.
- 33. (Currently Amended) The composition according to claim 32, wherein the concentration of said at least one branched sulfonic adhesive polymer <a href="having a">having a</a>
  <a href="Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa's)">may be used to 10% by weight, relative to the weight of the composition as a whole.</a>
- 34. (Previously Presented) The composition according to claim 21, wherein the concentration of said solid particles ranges from 0.1% to 50% by weight, relative to the weight of the composition as a whole.
- 35. (Previously Presented) The composition according to claim 34, wherein the concentration of said solid particles ranges from 0.5% to 40% by weight, relative to the weight of the composition as a whole.
- 36. (Previously Presented) The composition according to claim 35, wherein the concentration of said solid particles ranges from 1% to 25% by weight, relative to the weight of the composition as a whole.
- 37. (Previously Presented) The composition according to claim 21, further comprising an organic solvent chosen from  $C_1$  to  $C_4$  alcohols,  $C_5$  to  $C_{10}$  alkanes, acetone, methyl ethyl ketone, methyl acetate, butyl acetate, ethyl acetate, dimethoxyethane and diethoxyethane.
- 38. (Previously Presented) The composition according to claim 37, wherein said C<sub>1</sub> to C<sub>4</sub> alcohols are chosen from ethanol and isopropanol.

Claims 39-41 (Canceled).

- 42. (Previously Presented) The composition according to claim 21, further comprising cosmetic additives chosen from reducing agents, silanes, fatty substances, thickeners, softeners, antifoams, moisturizers, antiperspirants, basifying agents, colorants, fragrances, preserving agents, surfactants, fixing polymers, nonfixing polymers, silicones chosen from volatile and nonvolatile silicones, polyols, proteins and vitamins.
- 43. (Previously Presented) The composition according to claim 42, wherein said reducing agents are chosen from thiols.
- 44. (Previously Presented) The composition according to claim 42, wherein said silanes are chosen from aminopropyltriethoxysilane.
- 45. (Previously Presented) The composition according to claim 42, wherein said silicones are chosen from anionic silicones.
- 46. (Previously Presented) The composition according to claim 21, wherein said composition is packaged in an aerosol device.
- 47. (Currently Amended) A method of making a styling, coloring, sheen-enhancing or conditioning product for the hair comprising including in said product a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer <a href="having a Brookfield">having a Brookfield</a>
  thermosel viscosity at 177°C of about 35,000 cP (mPa's), wherein when said composition is applied to the hair and dried thereon, the resulting dried composition has a detachment profile defined by at least one maximum detachment force F<sub>max</sub> of greater than 1 N, wherein F<sub>max</sub>, as measured by an extensometer, is the maximum tensile force

needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm<sup>2</sup> and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of  $53/c~\mu g/mm^2$  with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{\text{max}}$ .

48. (Currently Amended) A method for holding and/or fixing the shape of a hairstyle comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer <a href="having a Brookfield thermosel viscosity at 177°C">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="having a Brookfield thermosel viscosity at 177°C">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a Brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a brookfield thermosel viscosity at 177°C of about 35,000 <a href="having cp">having a brookfield thermosel viscosity at 177°C

said surfaces are precoated at a concentration of 53/c µg/mm² with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium,

wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{\text{max}}$ .

49. (Currently Amended) A method for giving hair coloring effects comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer having a Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa·s), wherein when said composition is applied to the hair and dried thereon, the resulting dried composition has a detachment profile defined by at least one maximum detachment force F<sub>max</sub> of greater than 1 N, wherein F<sub>max</sub>, as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm² and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of  $53/c~\mu g/mm^2$  with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{\text{max}}$ .

50. (Currently Amended) A method for enhancing the sheen of hair comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer <a href="having a Brookfield thermosel viscosity at 177°C">having a Brookfield thermosel viscosity at 177°C</a> of about 35,000 <a href="mailto:cP">cP (mPa·s)</a>, wherein when said composition is applied to the hair and dried thereon, the resulting dried composition has a detachment profile defined by at least one maximum detachment force F<sub>max</sub> of greater than 1 N, wherein F<sub>max</sub>, as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm² and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of 53/c µg/mm² with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{max}$ .

51. (Currently Amended) A method for conditioning hair comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer <a href="having a Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa·s)">having a Brookfield thermosel viscosity at 177°C of about 35,000 cP (mPa·s)</a>, wherein when said composition is applied to the hair and dried thereon, the resulting dried composition

has a detachment profile defined by at least one maximum detachment force  $F_{max}$  of greater than 1 N, wherein  $F_{max}$ , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm<sup>2</sup> and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of  $53/c~\mu g/mm^2$  with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{\text{max}}$ .

52. (Currently Amended) A product for styling, giving coloring effects to, enhancing the sheen of, or conditioning hair, said product comprising a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one branched sulfonic adhesive polymer <a href="having a Brookfield thermosel">having a Brookfield thermosel</a>
<a href="wiscosity at 177°C">wiscosity at 177°C</a> of about 35,000 cP (mPa's), wherein when said composition is applied to the hair and dried thereon, the resulting dried composition has a detachment profile defined by at least one maximum detachment force F<sub>max</sub> of greater than 1 N, wherein F<sub>max</sub>, as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm² and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of  $53/c~\mu g/mm^2$  with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine  $F_{\text{max}}$ .